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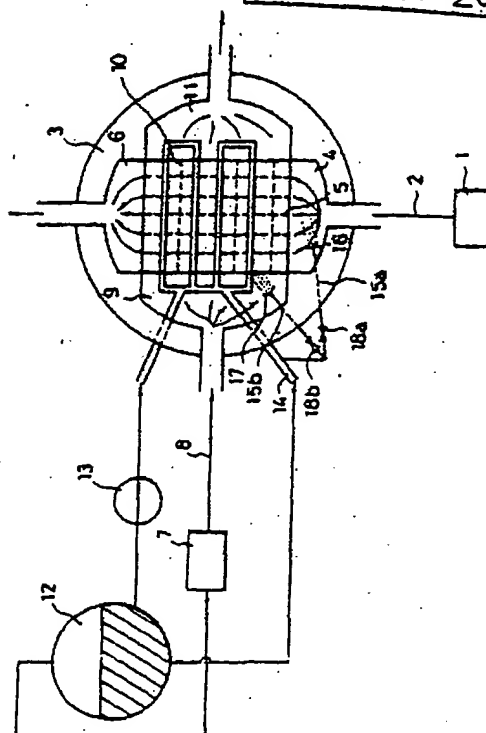
PUBLICATION NUMBER : 60136178
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APPLICANT : TOSHIBA CORP;

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TITLE : FUEL CELL POWER GENERATION
PLANT



ABSTRACT : PURPOSE: To prevent any deterioration of the electrodes and increase the amount of power generation by installing a fuel-electrode- and an oxidant-electrode- humidifying pipe branching from the cell-outlet-side of a cell-cooling-water pipe and providing ends of said humidifying pipes with vapor injectors for spraying hot water.

CONSTITUTION: An oxidant gas supply device 1 works to supply an oxidant gas into grooves 5 formed in the oxidant electrode of a fuel cell 3. A fuel gas supply device 7 works to supply the steam sent from a vapor-producing boiler 12 into grooves 5 formed in the fuel electrode of the fuel cell 3. Hot water contained in the boiler 12 is supplied to a cell-cooling-water pipe 14 installed in the fuel cell 3 by means of a circulation pump 13. An oxidant-electrode-humidifying pipe 15a and a fuel-electrode-humidifying pipe 15b branch from the fuel cell outlet of the pipe 14. An oxidant-electrode-humidifying-vapor injector 16 and a fuel-electrode-humidifying-vapor injector 17 for spraying hot water are attached to ends of pipes 15a and 15b leading to near the inlets of an oxidant electrode and a fuel electrode inlet manifold 4 and 9.

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